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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,675	03/20/2006	Tsuyoshi Kanda	P71175US0	4430

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JACOBSON HOLMAN PLLC
400 SEVENTH STREET N.W.
SUITE 600
WASHINGTON, DC 20004

EXAMINER

LEE, GILBERT Y

ART UNIT	PAPER NUMBER
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3673

MAIL DATE	DELIVERY MODE
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11/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/572,675	Applicant(s) KANDA, TSUYOSHI	
	Examiner Gilbert Y. Lee	Art Unit 3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/25/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed 8/29/07 has been entered.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1-4 recite the limitation of the projection including "a plurality of sets of side surfaces"; however, Fig. 1 of the present invention clearly shows that each projection only has one "set" of side surfaces 24a and 24b.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 3, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Hadaway (US Patent No. 3,923,315).

Regarding claim 1, the Hadaway reference discloses a sealing apparatus (e.g. Fig. 1) for sealing an annular gap (e.g. gap between housing and shaft) between a shaft and a housing (e.g. housing that would be in contact with element 6) that are relatively rotated, the sealing apparatus comprising

a seal lip (e.g. 4) extending toward a sealing fluid side (Fig. 1) to be in sliding contact with a surface of the shaft (Fig. 2),

a projection (e.g. 7 and 8) disposed at a root of the seal lip (Fig. 2), a distance between a surface of the projection and a center of the shaft being equal to or slightly larger than a radius of the shaft (Fig. 2), and

at least a part of a side surface of the projection exhibiting a suction function of returning fluid that has leaked from a seal lip tip end to a sealing fluid side when the shaft and the housing are relatively rotated (Col. 2, Line 66 - Col. 3, Line 2), the projection including a plurality of sets of side surfaces (Figs. 1-6), the side surfaces of each of said sets forming a triangular shaped recess (e.g. 11 and 12) in the projection and pointing down towards the seal tip end (Figs. 1-6). MPEP 2113 Product-by-Process Claims states that

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"If the product in the product-by-process claim is that same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process." Claim 1 is anticipated by Hadaway. The process by which the triangular shaped recess is made is not a patentable distinction.

Regarding claim 3, the Hadaway reference discloses one of the side surfaces of each of the sets of the projection exhibits the suction function when the shaft and the housing are relatively rotated in a first direction, and the other one of the side surfaces of each of the sets exhibits the suction function when the shaft and the housing are relatively rotated in a second direction opposite to the first direction (Col. 2, Line 66 - Col. 3, Line 2).

5. Claims 2 and 4, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Sink (US Patent No. 5,511,886).

Regarding claim 2, the Sink reference discloses a sealing apparatus (Fig. 6) for sealing an annular gap (e.g. gap between 14 and 42) between a shaft (e.g. 42) and a housing (e.g. 14) that are relatively rotated, the sealing apparatus comprising

a seal lip (72) extending toward a sealing fluid side to be in sliding contact with a surface of the shaft (Fig. 6),

an annular portion (70) projecting out more to the sealing fluid side than the seal lip (Fig. 6), and

the annular portion including a projection (e.g. 74), a distance between a surface of the projection and a center of the shaft being equal to or slightly larger than a radius of the shaft (e.g. shown by d in Fig. 6), and at least a part of a side surface of the projection exhibiting a suction function of returning fluid that comes in to the inner circumference side of the annular portion to a sealing fluid side. When the shaft and the housing are relatively rotated (Col. 4, Lines 46-67), the projection including a plurality of sets of side surfaces (Fig. 5), the side surfaces of each of said sets forming a triangular shaped recess (Fig. 5) in the projection and pointing down towards the seal tip end (Fig. 5). MPEP 2113 Product-by-Process Claims states that "If the product in the product-by-process claim is that same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process." Claim 2 is anticipated by Sink. The process by which the triangular shaped recess is made is not a patentable distinction.

Regarding claim 4, the Sink reference discloses one of the side surfaces of each of the sets of the projection exhibits the suction function when the shaft and the housing are relatively rotated in a first direction, and the other one of the side surfaces of each of the sets exhibits the suction function when the shaft and the housing are relatively rotated in a second direction opposite to the first direction (Col. 6, Lines 11-20).

Response to Arguments

6. Applicant's arguments filed 8/29/07 have been fully considered but they are not persuasive.

With regards to the applicant's argument of the Hadaway reference, the argument is not persuasive because rib sections 7 and 8 in the Hadaway reference is equivalent to the projection being claimed. The recess, 11 or 12, between sections 7 and 8 is equivalent to the triangular shaped recess being claimed.

With regards to the applicant's argument of the Sink reference, the argument is not persuasive because projection 70 extends in the direction of a sealing fluid (Col. 4, Lines 34-37) as claimed. The applicant further argues that the projections of the Sink reference are formed of ribs or projections as contrasted with the side surfaces cut into the projection of the present invention; however, each projection 70 in Fig. 5 has a side surface 76a and 76b which correspond to the side surfaces of the current disclosure. The recess between each projection 70 is equivalent to the triangular shaped recess being claimed. Furthermore, the process by which the triangular shaped recess is made is not a patentable distinction.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gilbert Y. Lee whose telephone number is 571-272-5894. The examiner can normally be reached on 8:00 - 4:30, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia L. Engle can be reached on (571)272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

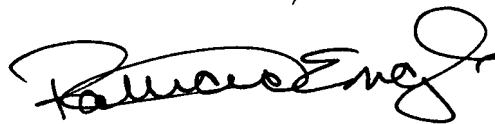
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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GL
November 7, 2007

A handwritten signature in black ink, appearing to read 'Patricia Engle', with a stylized flourish at the end.

Patricia Engle
Supervisory Examiner
Tech. Center 3600